Glastonbuty

Meadows

1.5 MI. TO U.S. 6

640 000 FEET GILDERSLEEVE (VIA CONN. 17A) 3 MH. MERIDEN (VIA. ALT. U.S. 6) 16 MI.

UTM GRID AND 1972 MAGINETIC NORTH DECLINATION AT CENTER OF SHEET

Base from U.S. Geological Survey, 1964

ticks, zone 18

10,000-foot grid based on Connecticut coordinate system. 1,000-metre Universal Transverse Mercator grid

MISCELLANEOUS FIELD STUDIES MAP MF-561 D LANGER-UNCONSOLIDATED MATERIALS, GLASTONBURY QUAD., CONN.

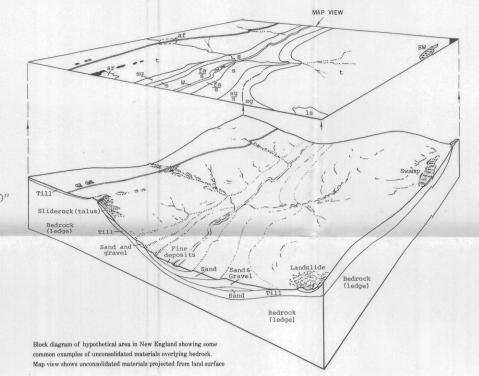
This map describes the type, thickness, and distribution of unconsolidated materials. It is intended to serve as an aid in reconnaissance evaluation, areal planning, and areal identification of potential econom-

706 MI. TO INTERSTATE 84 MANCHESTER (U.S. 6) 1.9 MI.

THIS MAP SHOULD NOT BE USED AS A SUBSTITUTE FOR ONSITE INVESTIGATION.

The map shows the distribution of particle sizes of the first materials of a significant thickness (generally greater than 3 feet (1 m)) occurring beneath the soil layer. The soil layer, commonly one or two feet (about 0.5 m) thick, is not mapped. Bedrock (ledge) is shown only where it is at or very near the land surface. Bedrock underlies, the entire map area at various depths beneath the unconsolidated material (Ryder and Handman, 1974). Information on the types of bedrock in this quadrangle is shown on the bedrock map by Herz (1955). Till (hardpan) forms the mapped surface over large areas. In most parts of the quadrangle, it underlies the other unconsolidated materials. Stratified deposits are composed of gravel, sand, silt, clay, and organic matter. They occur in layers, and overlie till and (or) bedrock in most of the map area. Stratified deposits at the surface are often underlain by stratified materials of different texture. These underlying materials have been shown on the map where they are known or inferred to occur. For example, the symbol s/f indicates that sand is

underlain by very fine sand, silt, and clay. The diagram below shows the vertical relationships often encountered in unconsolidated materials in New England.



Most unconsolidated materials are mixtures of the three particle-size classes defined in the diagram below. Coarse particles (stones) include granules, pebbles, cobbles, and boulders. Medium particles include all sand sizes except very fine sand. Fine particles include very fine sand, silt, and clay-sized particles.

| | | | | PARTICE | | cLASSIFICA ed from V | | | S REPORT | | |
|--------------------------|----------|---------|---------|----------|----------------------|-------------------------|--------|------|--------------|------|------------------------------|
| Diameter of particles | 10 25 | | | | 8 .04 2 1 | .02 | | | 005 .002 | | 015 inches 004 millimetre |
| Boulde | rs | Cobbles | Pebbles | Granules | Very coarse | Coarse | Medium | Fine | Very fine | Silt | Clay |
| Gravel-sized particles | | | | | Sand-sized particles | | | | | | |
| COARSE | | | | | MEDIUM | | | | FINE | | |

Materials mapping involves a visual estimate of particle-size distribution by a field geologist. Percentages of particle sizes may, therefore, differ somewhat in places from the limits defined in the map units below. Map units may also contain small lenses of material that differ in particle size from the main deposit.



Particle sizes range from 100 percent coarse particles to 50 percent coarse and 50 percent medium particles. Materials may occur as layers of well to poorly sorted gravel, or as layers of gravel interbedded with layers of sand; may also contain minor amounts of fine particles

SAND AND GRAVEL DEPOSITS

Particle sizes range from 50 percent coarse and 50 percent medium particles to 25 percent coarse and 75 percent medium particles. May also contain minor amounts of fine particles. Material may occur as: (1) thin layers of well to poorly sorted sand

interbedded with thin layers of well to poorly sorted gravel.

(2) distinct pockets of well to poorly sorted sand, gravel, and sand and gravel.

(3) poorly sorted mixed layers of sand and gravel.

sg, undifferentiated sand and gravel deposits sga, deposits of river alluvium, consisting mostly of sand and gravel with some organic material; may also contain fine



Particle sizes range from 25 percent coarse particles and 75 percent medium particles, through 100 percent medium particles, to 50 percent medium particles and 50 percent fine particles

and scattered coarse particles

Textures mapped by W.H. Langer, 1973

QUADRANGLE LOCATION

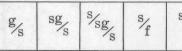
s, sand deposits commonly occurring as well to poorly sorted layers of varying sa, deposits of river alluvium, consisting mostly of sand with some organic

material; may also contain fine particles

VERY FINE SAND, SILT, AND CLAY DEPOSITS

Particle sizes range from 50 percent fine and 50 percent medium particles to 100 percent fine particles; may also contain scattered coarse particles.

- f, well-sorted layers of very fine sand, silt, and (or) clay; or massive beds of very fine
 - sand, silt, and (or) clay f_a, deposits of river alluvium, consisting mostly of very fine sand and silt; some organic material and scattered coarse



particles may be present

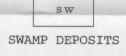
SUPERPOSED DEPOSITS

Areas where surface units are commonly less than 15 feet (4.5 m) thick and are known or inferred to overlie thicker stratified materials. Till is inferred to be present at depth beneath most stratified materials; therefore, its presence is not shown by these symbols



TILL (HARDPAN) DEPOSITS

Includes light-gray till (t) and reddish-brown till (tp); t is a nonsorted to poorly sorted, noncompact mixture of silt, sand, pebbles, cobbles, and boulders which contains minor amounts of clay; tR ranges from a crudely sorted, noncompact mixture of sand, silt, pebbles, and cobbles which may contain minor amounts of clay, to a nonsorted, compact mixture of silt and clay with some pebbles and cobbles. Till is present at depth beneath most unconsolidated materials in the map area. The contact between t and

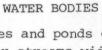


tp is only approximately located on the map

Generally dark, decomposed or partially decomposed organic material intermixed with varying amounts of sand, silt, and clay. Locally, contains scattered stones. Swamp deposits are commonly underlain by the surrounding material



Bedrock (ledge) exposed at the ground surface; may be partially covered by thin soil. Ruled pattern shows areas of numerous closely spaced outcrops and bedrock thinly covered with soil



In general, lakes and ponds greater than 5 acres (2 hectares) in area, or streams wider than 200 feet (61 m)

ARTIFICIAL FILL

Shown only for roads, highways, dams, solid-waste disposal, and other major construction. Additionally, in urban centers and other areas of dense development, fill of variable thickness and extent may overlie the natural materials shown on the map

> af, predominantly earthfill aft, predominantly trashfill

TEST HOLE LOCATION

Numbers correspond by town to those used by Ryder and Weiss (1971). See logs of selected test holes below

CONTACTS

Surface contact between map units

Inferred position of concealed subsurface contact

Generalized contact between t and tR

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25, 54 p. Wentworth, C. K., 1922, A scale of grade and class terms for clastic sediments: Jour. Geology, v. 30, p. 377-392.

EXPLANATION

Sand with scattered pebbles v, varved Rx Bedrock Ref Drill refusal Color of sample B Brown G Gray R Reddish-brown T Tan Bedrock type Co Conglomerate
Gn Gneiss
Gr Granite
Sc Schist
Sh Shale
Ss Sandstone D Decomposed rock

? Identification uncertain

■ Water table - date of observation not known

MAP SHOWING UNCONSOLIDATED MATERIALS, GLASTONBURY QUADRANGLE, CONNECTICUT

CONTOUR INTERVAL 10 FEET

DATUM IS MEAN SEA LEVEL

By

William H. Langer 1976

Interior-Geological Survey, Reston, Va.-1976 For sale by U.S. Geological Survey, price 50 cents